

# Open science journal publishes attempt to reproduce high-profile stem cell acid bath study

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In a study published today in [F1000Research](#), Professor Kenneth Lee of the Chinese University of Hong Kong reveals the full experimental results of an attempt to replicate a controversial study published in *Nature* recently that suggested that bathing somatic cells in acid can reprogram them to induced pluripotent stem cells (iPS cells). With systematically collected and fully available data, Lee and his colleagues report that carefully replicating the original acid-treatment method does not induce pluripotency in two types of mouse somatic cells, including those used in the original study.

iPS cells have the unique ability to give rise to most other cell types, and have potentially wide therapeutic applications. This characteristic can be triggered in other cells by transforming them into iPS cells, which further increases the potential for [stem cell therapies](#). Earlier this year, a group from Japan reported a greatly simplified procedure for producing iPS cells by bathing [somatic cells](#) in an [acid bath](#).

To verify these claims, Kenneth Lee set out to replicate the work in his own lab, and documented his experiments online in the process, leading to lively online discussions between stem cell scientists who provided feedback and [commentary along the way](#). Using both [white blood cells](#) isolated from the spleen of neonatal mice - the same cells used in the original study - and lung fibroblasts, Lee was unable to replicate the original findings, and has now published the full results of his study in

*F1000Research.*

Unlike most journals, all research papers in the open access journal *F1000Research* are accompanied by the full underlying datasets so other researchers will be able to re-analyse and more easily reproduce the work. In addition, *F1000Research* employs open peer review by invited expert scientists, which occurs after publication and is published in full online alongside the paper, removing much of the potential bias that often occurs in traditional anonymous pre-publication peer review.

"Publishing Professor Lee's attempted replication study in this unique and open manner will facilitate a less-hyped and more informed debate and demonstrates the value of this extra level of transparency in the publication process", says Daniel Marovitz, CEO of F1000.

Lee's study will now undergo this transparent invited [peer review](#) process and anyone interested to see referees' views as they come in can follow the paper by clicking 'Track' on the [published article](#).

Provided by Faculty of 1000

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